

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D350-689 REV. A
AND FLIGHT MANUAL SUPPLEMENT FMS-D350-689 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-689 REV. 0
REF. CANADIAN STC: SH02-33
REF. FAA STC: SR01620NY

PURPOSE

The purpose of this DSI is to add the D350-689-021 Dual High Back Seat Installation, LH, the D350-689-023 Floor Provisions Kit and the D350-689-043 Dual High Back Seat Assembly to IIN-D350-689 Rev. A. The D350-689-021/-023 Kits are compatible with the Energy Attenuating Seat rails in later AS 350/355 model aircraft.

The DSI 9419-011 Kit includes the parts that are required to convert a D350-689-011 installation into a D350-689-021 installation.

PART LIST




-011	-021	-023	-043	P/N	DESCRIPTION
X				DSI 9419-011	ENERGY ATTENUATING CONVERSION KIT
	X			D350-689-021	DUAL HIGH BACK SEAT INSTALLATION, LH
	1	X		D350-689-023	ENERGY ATTENUATING FLOOR PROVISIONS KIT
	1		X	D350-689-043	DUAL HIGH BACK SEAT ASSEMBLY
			2	D3016-041	SEAT FRAME ASSEMBLY
			1	D3017-041	BACK FRAME ASSEMBLY
	1			D3018-1	SEAT CUSHION
	1			D3019-1	BACK CUSHION
			1	D3021-041	TUBE ASSEMBLY
			1	D3022-1	SEAT PAN
			1	D3023-1	BACK PANEL
			3	D3024-1	SPACER
		1		D3025-1	BEAM
		1		D3026-1	CHANNEL
		1		D3027-1	CLIP
		1		D3027-3	CLIP
		1		D3027-5	CLIP
		4		D3027-7	CLIP
			2	D3031-1	LOOP
1		1		D3234-1	DOUBLER
1		1		D3234-3	DOUBLER
2			2	D3808-041	SEAT RAIL ASSEMBLY
4			4	D3809-1	SLIDING BLOCK
1		1		D3811-041	SEAT TRACK ASSEMBLY

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: Aug. 19/2008
CERT. NO.: SH02-33
ISSUE NO.: 1

A	NEW ISSUE	RF	08.08.19
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9419	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		ENERGY ATTENUATING PROVISION KIT	NTS
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-011	-021	-023	-043	P/N	DESCRIPTION
			3	AN3-12A	BOLT
14		14		MS20426AD4-5	RIVET
34		34		MS20470AD4-5	RIVET
18		18		MS20470AD4-6	RIVET
		32		MS20470AD5-6	RIVET
			40	MS20600AD4W2	RIVET
			6	MS20600AD4W3	RIVET
9		9	23	MS21042L3	NUT (or MS21042-3)
			4	MS24693-S272	SCREW
8			8	MS24694-S3	SCREW
9		9		MS24694-S50	SCREW
4			4	MS24694-S148	SCREW
			4	MS27039-1-17	SCREW
			12	MS27039-1-19	SCREW
			23	NAS1149D0332J	WASHER (or AN960JD10L)
9		9		NAS1149D0363J	WASHER (or AN960JD10)

PROCEDURE

1. Install the under floor structure as outlined in steps 1-18 of IIN-D350-689 Rev. A and DSI 9311 Rev. A as applicable, except do not install D3032-1 Spacers. Attach D3026-1 Channel to floor using (14) MS20426AD4 rivets. Ensure D3234-1/-3 Doublers are installed per DSI 9269 Rev. A.
2. Position the D3811-041 Seat Track Assy at LBL 27.33 as shown in Figure 1 to be in-line with the existing seat rails at LBL 8.98 and LBL 19.16.
3. Transfer the attachment holes from D3811-041 Seat Track Assy to aircraft floor (9 pls) using a $\phi 0.201$ (#7 drill). Deburr holes. Install D3811-041 using (9) MS24694-S50 screws, (9) NAS1149D0363J washers, and (9) MS21042L3 nuts as shown in Figure 1. Torque screws to 20 to 25 in-lbs (2.3 to 2.8 Nm).
4. If converting a -041 Seat Assembly to a -043 Seat Assembly, remove D3028-1 Studs, D3029-1 Springs, and D3030-1 Locks from the D350-689-041 Seat Assembly. Install (2) D3808-041 Seat Rails Assemblies as shown in Figure 1 Detail A using (4) MS24694-S148 Screws. Torque screws to 100 to 140 in-lbs (11.3 to 15.8 Nm). Install D3809-1 Sliding Blocks using (2) MS24694-S3 screws as shown in Figure 1 Detail A. Torque screws to 12 to 15 in-lbs (1.4 to 1.7 Nm).
5. Remove screws from back end of Seat Tracks at LBL 27.33 and LBL 8.98. Slide D350-689-043 Seat Assembly into both seat tracks and lock in desired position using D3810-1 Retractable Spring Plungers. Re-install screws on back of seat tracks per the Aircraft Maintenance Manual.

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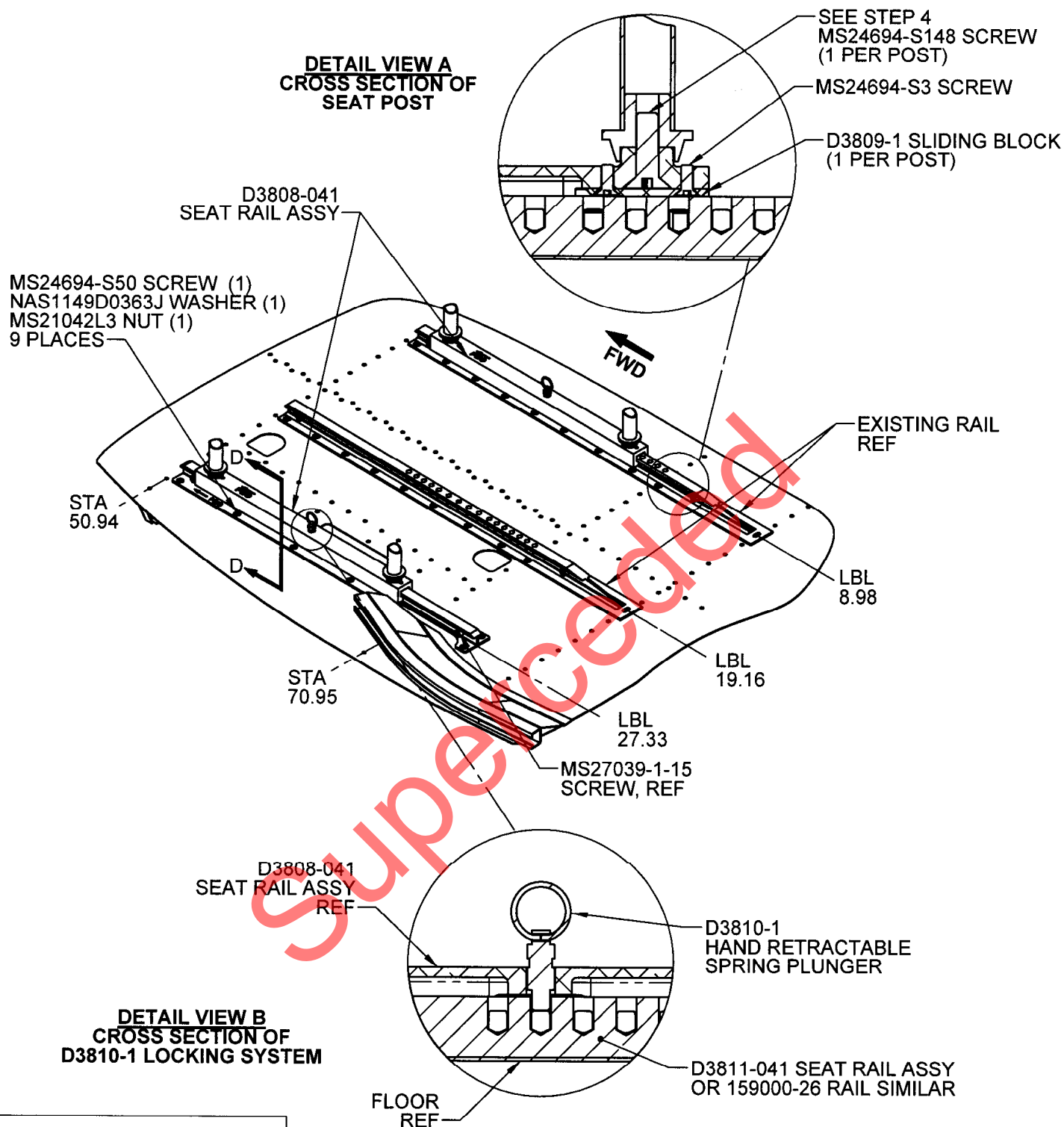


FIGURE 1 D350-689-021 INSTALLATION

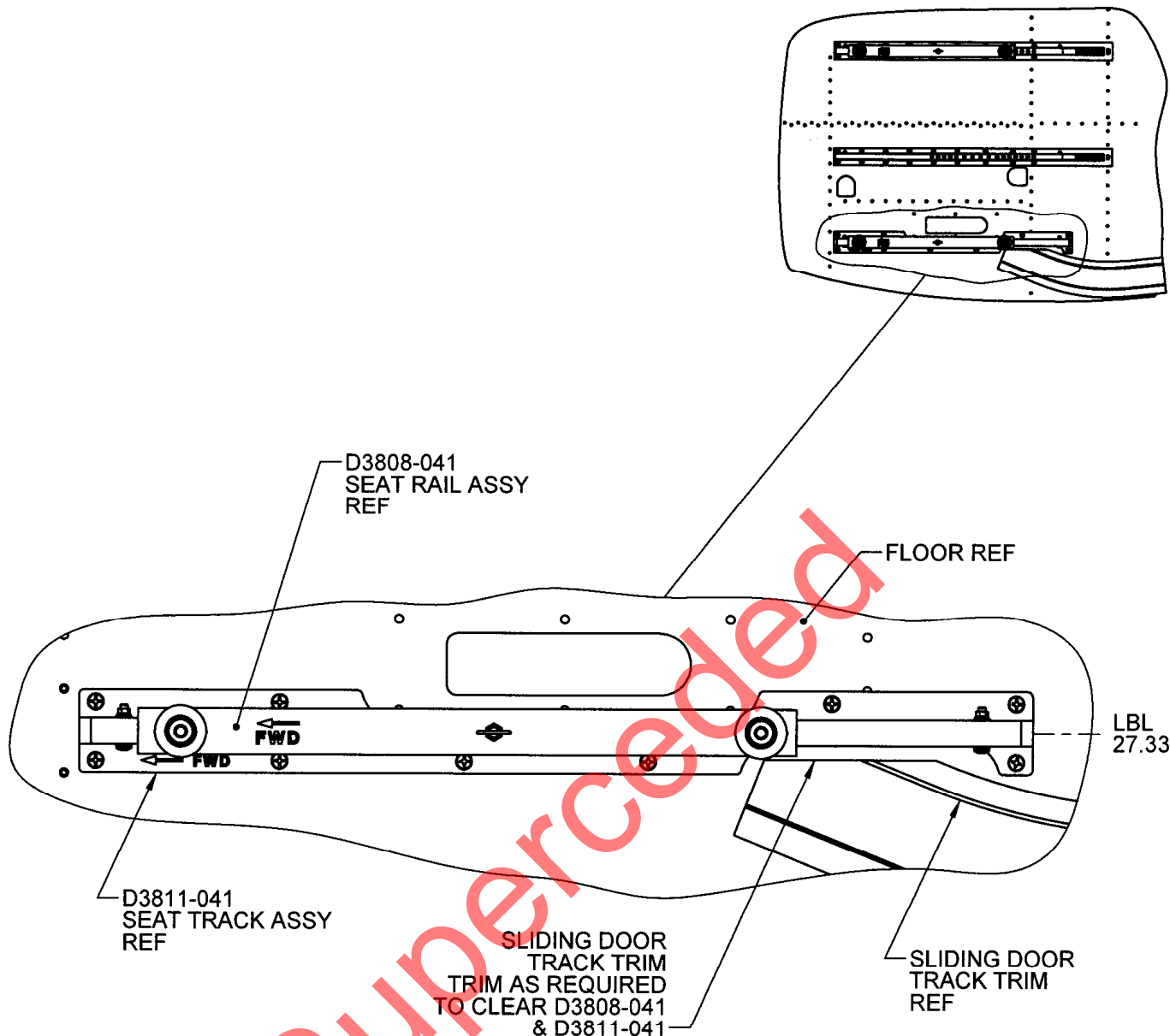
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**DETAIL VIEW C
SLIDING DOOR TRACK TRIM**

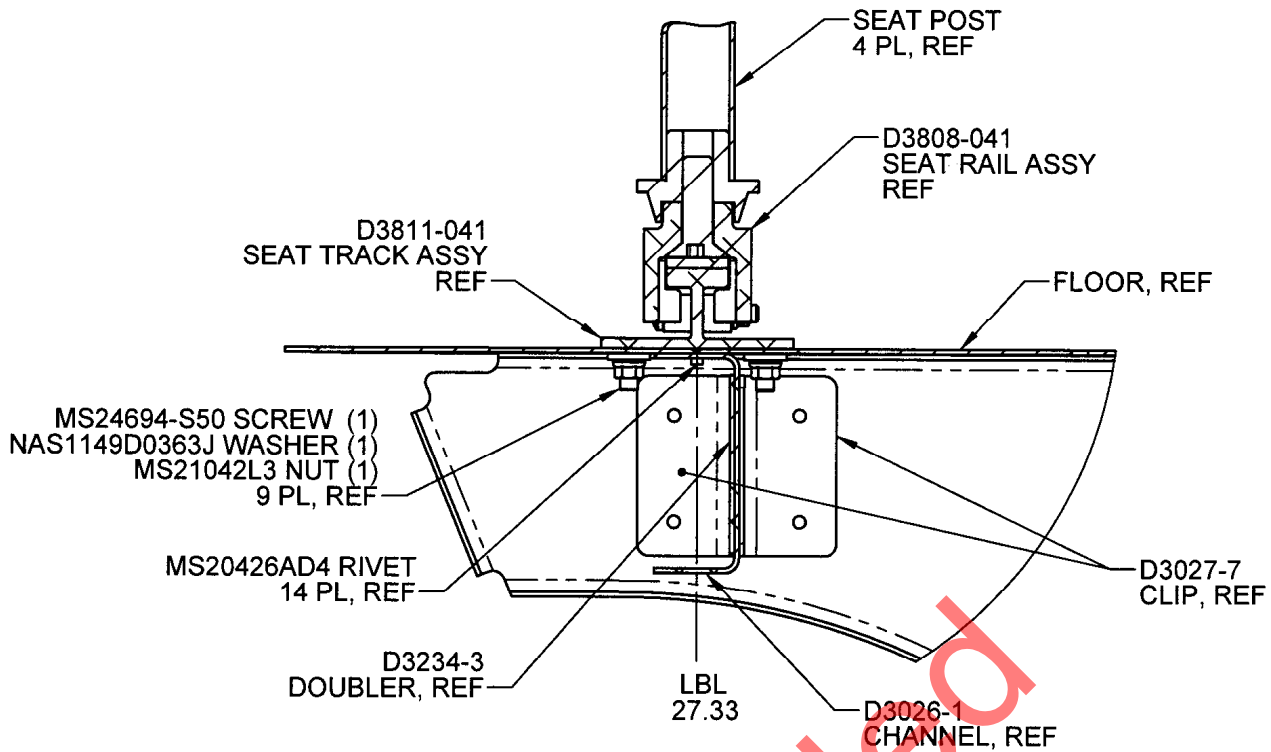
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CROSS SECTION D-D

WEIGHT AND BALANCE

The following is the net weight increase associated with the Kits.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
DSI 9419-011 Energy Attenuating Conversion Kit	1.1 lb 0.50 kg	-18.2 in -0.46 m	-20 in-lb -0.2 m-kg	60.7 in 1.54 m	67 in-lb 0.77 m-kg
D350-689-021 Dual High Back Seat Installation, LH Fwd Position	28.6 lb 13.0 kg	-18.2 in -0.46 m	-521 in-lb -6.0 m-kg	60.7 in 1.54 m	1736 in-lb 20.0 m-kg
D350-689-021 Dual High Back Seat Installation, LH Aft Position	28.6 lb 13.0 kg	-18.2 in -0.46 m	-521 in-lb -6.0 m-kg	64.7 in 1.64 m	1850 in-lb 21.3 m-kg
D350-689-023 Energy Attenuating Floor Provisions Kit	2.5 lb 1.1 kg	-18.2 in -0.46 m	-46 in-lb -0.5 m-kg	62.2 in 1.58 m	156 in-lb 1.7 m-kg

REVISED LOADING CHART

With respect to the Loading Chart in FMS-D350-689, when the Dual High Back Seat has been installed in an aircraft with Energy Attenuating Seat rails per this DSI, the occupants are located at STA 61.02 when the seat is in the Fwd position and at STA 65.02 when the seat is in the Aft position.

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